



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/613,612	07/03/2003	Robert L. Steadman	UGS03-01	4358

7590 11/16/2004

Lesley A. Hamlin
Textron Systems Corporation
201 Lowell Street
Wilmington, MA 01887

EXAMINER

LOBO, IAN J

ART UNIT	PAPER NUMBER
----------	--------------

3662

DATE MAILED: 11/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/613,612

Applicant(s)

STEADMAN ET AL.

Examiner

Ian J. Lobo

Art Unit

3662

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 August 2004.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-52 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-52 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-8, 13, 22-28, 34-41 and 46-52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brown et al ('885).

3. Claims 1, 2, 4, 9, 10, 24, 26, 27, 28, 29, 34-37, 41, 43, 48 and 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith ('764).

The patent to Brown et al discloses a method and system that includes acquiring signals from one or more surveillance systems and distinguishing a threat from said signals (col. 4, lines 1-16), communicating a cue signal (26) to a countermeasure system (10) having a countermeasure (76, 78), and deploying the countermeasure. In as much as the system (10) of Brown et al includes a processor (30), it is inherent that the processor includes computer readable instructions not unlike the steps of claim 26.

The patent to O'Neill discloses a method and system that includes acquiring signals from one or more surveillance systems and distinguishing a threat from said signals (col. 4, lines 8-36), communicating a cue signal (80) to a countermeasure system (64) having a countermeasure and deploying the countermeasure (col. 4, lines 6-7). In as much as the system (20) of Brown et al includes a processor (70), it is

Art Unit: 3662

inherent that the processor includes computer readable instructions not unlike the steps of claim 26.

The patent to Smith discloses (see Figs. 6 and 7) a method and system that includes acquiring signals from one or more surveillance systems (29, 30, 34) and distinguishing a threat from said signals, communicating a cue signal to a countermeasure system having a countermeasure (42), and deploying the countermeasure (42). In as much as the system of Smith includes a processor (see Fig. 14), it is inherent that the processor includes computer readable instructions not unlike the steps of claim 26.

The difference between independent claims 1, 26 and 34 and the Brown et al, Smith or O'Neill systems is the claims now recite that the countermeasure is on a platform "separate from said one or more surveillance systems". However, it is arguable that the current amendment to the independent claims merely recites the rearrangement of old parts of a well known countermeasure system. The rearrangement of old parts, without the modification of the systems (surveillance, countermeasure) is a common practice that the courts have held to normally require only ordinary skill in the art and therefore are considered routine expedients. Claims 1, 26 and 34 are so rejected.

Per claim 2, see Brown et al, col. 4, lines 3-4 or elements 30 and 32 in Fig. 1, of O'Neill or Fig. 6 of Smith.

Per claims 3-5, 27, 28 and 35-40, see col. 3, lines 56-60 of Brown et al or col. 1, lines 5-34 of O'Neill or Fig. 6 and 7 of Smith.

Art Unit: 3662

Per claim 6, see Brown et al, col. 3, lines 9-20.

Per claim 13, see Brown et al, col. 5, lines 8-11.

Per claims 7-8 and 22-25, see Brown et al, col. 1, lines 16-24 and Fig. 2.

Per claims 41, 46 and 48 see processor 30 of Brown et al.

Per claims 49 and 50, see Brown et al, col. 6, lines 7-11.

Per claims 51 and 52, see Brown et al, col. 1, line 17 and col. 6, lines 7-11.

4. Claims 9-12 and 14-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brown et al as applied to claim 1 above, and further in view of White et al ('134).

Claims 9-12 and 14-18 are specific to the signal processing steps of the countermeasure processor. Brown et al does not discuss the details of the signal processing system but does suggest the use of acoustic signals (col. 5, line 11).

The patent to White et al discloses that the use of discrete Fourier transformation (DFT), fast Fourier transformation (FFT), digital filtering using infinite impulse response filters and finite impulse response filters are well known in the acoustic signal processing art. In view of the suggested use of acoustic signals in the countermeasure processor system of Brown et al, it would have been obvious, in light of the teachings of White et al, to utilize the processing and filtering techniques of White et al in the acoustic system of Brown et al so as to better distinguish a threat in the acoustic signals. Note that digital filters cover almost all window-based FIR and IIR filters, which

Art Unit: 3662

include averaging, exponential, Butterworth, Chebyshey, Kaiser window, and all other windowing functions such as Hanning, Hamming, and Blackman.

5. Claims 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brown et al as applied to claims 1 and 9 above, and further in view of Duckworth et al ('141).

The difference between claims 19-21 and the Brown et al system is the claims specify using time-difference calculations for calculating the position and/or bearing of a source. As aforementioned in the previous paragraph, Brown et al does not discuss the specifics of the processing system, especially the acoustic system suggested.

However, as evidenced by the patent to Duckworth et al, a skilled artisan would readily be able to ascertain positional and bearing information from the time-difference calculations of the acoustic signals, such that it would be obvious to a skilled artisan to utilize time-difference calculations for ascertaining the location of a missile of Brown et al.

Response to Arguments

6. Applicant's arguments with respect to claims 1, 26 and 34 have been considered but are moot in view of the new ground(s) of rejection.

Art Unit: 3662

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ian J. Lobo whose telephone number is (703) 306-4161. The examiner can normally be reached on Monday - Friday, 6:30 - 3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas H. Tarcza can be reached on (703) 306-4171. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "Ian J. Lobo", is positioned above the printed name and title.

Ian J. Lobo
Primary Examiner
Art Unit 3662